

REMARKS

The Final Office Action mailed April 25, 2006, has been received and reviewed. Claims 1 through 6 are currently pending in the application. Claims 1 through 6 stand rejected. Applicant proposes to amend claims 1 through 6, and respectfully request reconsideration of the application as proposed to be amended herein.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on Applicant's Admitted Prior Art in view of U.S. Patent . 5,950,071 to Hammond et al. and in view of U.S. Patent 5,023,424 to Vaught

Claims 1 through 6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's Admitted Prior Art in view of Hammond et al. (U.S. Patent No. 5,950,071) and in view of Vaught (U.S. Patent No. 5,023,424). Applicant respectfully traverses this rejection, as hereinafter set forth.

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added)

After carefully considering the cited prior art, the rejection, and the Examiner's comments, Applicant has amended the claimed invention to clearly distinguish over the cited prior art.

Turning to the cited prior art, the AAPA teaches or suggests the use of lasers for the removal of resist from semiconductor substrates.

The Hammond et al. reference teaches or suggests that lasers may be used for methods of particle desorption in ablative or non-ablative processes which is analogous to chemical etching.

Like chemical etching, laser ablation tends to micro-roughen the surface, making the process generally unsuitable for semiconductor or FPD cleaning applications.

The Vaught reference teaches or suggests the use of laser induced shock waves to dislodge particles from a wafer surface using a wafer support, a particle detector and computer for locating and storing the locations of particles on the wafer.

Applicant asserts that any combination of AAPA in view of the Hammond et al. reference and in further view of the Vaught reference cannot and does not establish a *prima facie* case of obviousness under 35 U.S.C. § 103 regarding the claimed inventions of presently amended independent claims 1, 3, and 5 because no combination of such cited prior art teaches or suggests all the claim limitations of the claimed inventions and because the cited prior art teaches away from any combination thereof. Applicant assert that any combination of the AAPR in view of the Hammond et al. reference and in further view of the Vaught reference does not teach or suggest the claim limitations of the claimed inventions of presently amended independent claims 1, 3, and 5 calling for “providing a semiconductor substrate having the surface”, “finding irregularities to remove from the semiconductor substrate by scanning the semiconductor substrate to locate irregularities”, “determining irregularities to remove from the semiconductor substrate by scanning the semiconductor substrate”, “locating irregularities to be removed from the semiconductor substrate by scanning the semiconductor substrate”, “roughening the surface of the semiconductor substrate when removing irregularities”, “roughening the surface of the semiconductor substrate while removing irregularities”, and “roughening the surface of the semiconductor substrate while removing irregularities from the semiconductor substrate”. Neither the AAPA nor the Hammond et al. reference nor the Vaught reference nor any combination of the AAPA in view of the Hammond et al. reference and in further view of the Vaught reference teaches or suggests any such claim limitations whatsoever. The AAPA merely teaches or suggests the use of a laser to remove resist from semiconductor substrates while the Hammond et al. reference teaches or suggests that a laser cannot be used to roughen a semiconductor substrate and while the Vaught reference teaches or suggests locating and storing the locations of particles on the wafer using a computer, not the claim limitations of scanning the semiconductor substrate to locate the irregularities. Applicant assert that any such

combination of the cited prior art cannot and does not teach or suggest the claim limitations of presently amended independent claims 1, 3, and 5 whatsoever. Accordingly, presently amended independent claims 1, 3, and 5 are allowable as well as dependent claims 2, 4, and 6 therefrom.

Applicant further asserts that the cited AAPA and the Hammond et al. reference and the Vaught reference teach away from any combination thereof because the Hammond et al. reference specifically states that laser ablation cannot be used with semiconductor substrates. Both AAPA and the Vaught reference teach or suggest semiconductor substrates. If the Hammond et al. reference laser ablation is used to roughen the surface of the semiconductor substrates of AAPA or the Vaught reference, those substrates are destroyed. Applicant assert that no one of ordinary skill in the art would destroy a semiconductor substrate using the Hammond et al. method. Accordingly, any combination of AAPA in view of the Hammond et al. reference and in further view of the Vaught reference cannot and does not establish a *prima facie* case of obviousness under 35 U.S.C. § 103 regarding the claimed inventions of presently amended independent claims 1, 3, and 5 as well as dependent claims 2, 4, and 6 therefrom. Therefore, such claims are allowable.

Applicant requests entry of this amendment for the following reasons:

The amendment is timely filed.

The amendment places the application in condition for allowance.

The amendment does not require any further search or consideration.

ENTRY OF AMENDMENTS

The proposed amendments to claims 1 through 6 above should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application. Further, the amendments do not raise new issues or require a further search. Finally, if the Examiner determines that the amendments do not place the application in condition for allowance, entry is respectfully requested upon filing of a Notice of Appeal herein.

CONCLUSION

Applicant requests entry of this amendment, the allowance of claims 1 through 6, and the application passed for issue. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicant's undersigned attorney.

Respectfully submitted,



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